REMARKS:

Claims **12-17, 19-36,** and **38** were examined. Claims **2-17** and **19-35** are amended. Claim **23-24** are canceled. The Applicant submits that these amendments merely make explicit that which was implicit in the claims as originally filed. As such, no new matter has been entered with these amendments. Furthermore, the Applicant submits that these amendments do not narrow the scope of any claim limitation within the meaning of the decision in *Festo*. No new subject matter has been introduced.

CLAIM REJECTIONS

35 USC 112

In the Advisory Action of Sept. 30, 2008, the 35 USC 112 rejections to claims 12-17 and 19-35 were withdrawn.

35 USC 103

CLAIM 12 IS ALLOWABLE OVER BRINKER AND DAM

Claims **12-17**, **19-26**, and **28-38** were rejected under 35 USC 103(a) as being obvious over U.S. Patent 6,264,741 to Brinker et al. (hereinafter "Brinker") in view of European Patent No. 1225188 to Dams (hereinafter "Dams"). The Applicant respectfully overcomes the rejection.

Claim **12** is amended to recite a solar cell encapsulated with a self-assembled barrier film structure thereon, wherein the barrier film recites layers of organic polymer alternate with the layers of inorganic material and wherein more than one of layers of the organic polymer contain a superhydrophobic material. The use of the barrier film as presently described to create a barrier directly on the solar cell is not shown or suggested.

Claim **37** is amended to recite a photovoltaic device wherein a bottom layer of the barrier film in contact with the photovoltaic device is an inorganic layer. Such a configuration is shown in Figure 1 and is beneficial as it prevents undesired interaction between the photovoltaic device and any organic material which may cause degredation in the cell.

Accordingly, Claims 12, 37, and their dependent claims are allowable over the cited art.

Additionally, all claims are also allowable as the Dams and Brinker references are not combinable based on the McGeHee Affidavit. Applicant has previously provided an affidavit

under 37 CFR 1.132 by Stanford University Materials Science Professor Michael McGehee, submitted on February 22, 2008 ("McGehee Affidavit") regarding the nonobviousness of a self-assembled structure with superhydrophobic material as claimed. The Office noted that Professor McGehee's expertise had not been established. In response, Applicants submit that Professor McGehee's technical background and expertise is described on his research group webpage http://www.stanford.edu/group/mcgehee/research.html. Applicant directs the Office to paragraph five of the above-referenced web page wherein it is stated "We make well ordered nanostructured solar cells by using self-assembly and nanoimprinting to make nanoporous titania films with straight pores and then filling those pores with semiconducting polymers." Applicant further cites to http://mse.stanford.edu/about_faculty/mse_fac_profile.php?sunetid=mmcgehee wherein Professor McGehee's educational background is described. In his publications listed on webpage http://www.stanford.edu/group/mcgehee/publications.html , papers such as *Infiltrating Semiconducting Polymers into Self-Assembled Mesoporous Titania Films for Photovoltaic Applications*, K.M. Coakley, Y. Liu, M.D. McGehee, K. Frindell, G.D. Stucky Advanced Functional Materials, 13 (2003) 301 show that Professor McGehee has performed cutting edge research in the area of self-assembly. As such, Applicant respectfully submits that Professor McGehee has expertise in the area of self-assembly.

CONCLUSION

For the reasons set forth above, the Applicant submits that all claims are allowable over the cited art and define an invention suitable for patent protection. The Applicant therefore respectfully requests that the Examiner enter the amendment, reconsider the application, and issue a Notice of Allowance in the next Office Action.

Respectfully submitted,

/Hao Y. Tung/

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